II. "Pelvic Characters of *Thylacoleo carnifex*." By Professor Owen, C.B., F.R.S., Director of the Natural History Department, British Museum. Received April 13, 1883.

(Abstract.)

In this paper the author selects from a series of fossils transmitted from Australia since the communication of the 1st February, 1883, the pelvis of a mature *Thylacoleo*, and gives results of a comparison of it with that of *Macropus major*, *Felis Leo*, and *Dasyurus ursinus*, incidentally referring to pelvic characters of the Wombat, the Koala, and the Phalangers.

The results are that the few correspondences with the Kangaroos relate exclusively to a common marsupial nature; to these, in the Dasyurines, are added other resemblances not found, save in Carnivorous Marsupials; and, finally, prominent characters are shown in which *Thylacoleo* exclusively repeats those presented by the pelvis of *Felis Leo*.

III. "On the Continuity of the Protoplasm through the Walls of Vegetable Cells." By Walter Gardiner, B.A., late Scholar of Clare College, Cambridge. Communicated by W. T. Thiselton-Dyer, C.M.G., F.R.S. Received April 16, 1883.

(Abstract.)

After quoting a passage from Professor Sachs' "Vorlesungen über Pflanzen-Physiologie," "every plant however highly organised is fundamentally a protoplasmic body forming a connected whole, which, as it grows on, is externally clothed by a cell membrane and internally traversed by innumerable transverse and longitudinal walls," the author suggests that any observations which demonstrate an actual continuity in organs of large extent must be of interest, as tending to show the truth of Sachs' statement in a sense somewhat more literal than his own. At the time that the above remarks were written, the instances of the existence of any protoplasmic continuity between adjacent cells were but few, being limited to sieve tubes and to Tangl's results with regard to the endosperm cells of Strychnos, Phœnix, and Areca. Then came the author's investigations upon the pulvini of Mimosa, Robinia, and Amicia, and subsequently to them, but previous to the present communication, appeared an important paper by Russow, in which he had proved that in the bast parenchyma cells and the phloem ray cells of numerous plants, *e.g.*, Populus,